**Homework 48** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pythagorean Theorem** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| 1) Find the missing side length. Reduce all radicals. | 2) Find the missing side length. Reduce all radicals. |
| 3) Find the missing side length. Reduce all radicals. | 4) Find the missing side length. Reduce all radicals. |
| 5) Find the area of the triangle below. Round to the nearest hundredth. | 6) A rectangular field shown below is 60 feet wide and 80 feet long. Jaylin and Joyce are at point A. Jaylin walks to point D by walking along the edge of the field through point B. Joyce walks to point D by walking diagonally across the field. About how many meters more does Jaylin walk than Joyce?  **A B**  **C D** |
| 7) Tell whether a triangle with the given side lengths is a right triangle.  a) 4, 4, and 8 \_\_\_\_\_\_\_\_\_\_\_  b) 5, 6, and \_\_\_\_\_\_\_\_\_\_\_  c) 4.3, 5.2 and 9.5 \_\_\_\_\_\_\_\_\_\_ | 8) The top of a ladder rests against a wall, 13 feet above the ground. The base of the ladder is 8 feet away from the wall. What is the length of the ladder, rounded to the nearest whole foot? |
| 9) A shipping dock has a mobile ramp that is used to help load and unload cargo from trucks. The ramp is 125 inches long and has a base that is 120 inches long. What is the height *h* of the ramp? | |

**Mixed Review**

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| 1) What are the roots of the equation  ? | 2) On a real number line, the coordinate of a point *A* is –10 and the coordinate of point B is –6. What is the coordinate of the midpoint of *AB*?   1. –16 2. –8 3. –4 4. 4 5. 16 |
| 3) Find the slope of the following equation: | 4) What is the distance between points (–4, –1) and (4, 3)? Leave your answer in simplest radical form. |
| 5) Simplify: | 6) At what point will the line below cross the x-axis? |
| 7) Opposite vertices of a square in the standard (x,y) coordinate plane have coordinates (4, 16) and (20, 0). What are the coordinates for the center of this square? | 8) Simplify:  a)  b)  c)  d)  e) |